DOCUMENT RESUME

ED 072 655 EM 010 772

AUTHOR Reich, Carol; Meisner, Alan
TITLE A Comparison of Colour and Black and White T. V.
INSTITUTION Toronto Univ. (Ontario).
PUB DATE Oct 72
NOTE 33p.; Report 110

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Closed Circuit Television; Color Presentation; *Color Television; *Communication (Thought Transfer); Comparative Analysis; Educational Psychology; Educational Television; *Instructional Television; *Intermode Differences; Student Attitudes; Television; Television Research
IDENTIFIERS *Canada

ABSTRACT

The relative educational effectiveness of color vs. black and white television has not been exhaustively explored. While previous studies have concentrated on the factual retention of subject matter--bypassing the subjective attitudes--this study was designed to thoroughly analyze both areas. Using Osgood's Semantic Differential and the Liking Scale, the researchers tested 12 seventh grade classes at experimental Toronto schools. A ten-item multiple choice test was used to measure retention. The classes were divided into color and black-and-white television groups. The study found that there was little evidence that color was a different instructional medium from black and white. The data suggested that color may reduce the value of the spoken word and consequently make color a valuable medium when the material to be taught involves visual experience or a dramatic event. (MC)

ED 072655

RESEARCH SERVICE

issued by the
Research Department

THE BOARD OF EDUCATION FOR THE CITY OF TORONTO

ED 072655

A COMPARISON OF COLOUR AND BLACK AND WHITE T.V.

Carol Reich
Alan Meisner

#110

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG
INATING IT. POINTS OF VIEW OR OPIN
IONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDU
CATION POSITION OR POLICY

October, 1972

TABLE OF CONTENTS

		Page No.
A REVIEW OF PAST RESEARCH	.....	1
THE PRESENT STUDY	.....	6
RESULTS	.....	11
SUMMARY AND CONCLUSIONS	.....	15
REFERENCES	.....	18
APPENDIX A Questionnaire	.....	19
APPENDIX B Coding Scheme	.....	26
APPENDIX C Programme Guide to this Study	.....	28

ACKNOWLEDGEMENTS

The Research Department is grateful to the staff and students of Deer Park, Parkdale and Lord Landsdowne Schools for cooperating in this study. We hope that the experience had educational value for the children and that the results will be useful to the staff.

We are also grateful to the Ontario Educational Communications Authority for allowing us to search through their videotape library and select appropriate programmes, as well as for preparing tapes for our use.

The Teaching Aids Department of the Board of Education for the City of Toronto was indispensable in supplying technical advice and assistance.

A REVIEW OF PAST RESEARCH

The development of colour television and colour film has generated interest in practical and theoretical questions about the effects of various media. Numerous studies have been undertaken in areas as seemingly diverse as advertising and education. One focus of inquiry has been the comparison of colour with black and white presentations.

"No significant difference" is the phrase which most succinctly summarizes the findings of the early studies. Without question, this recurring finding was a great disappointment to early advocates of colour technology who expected that the use of colour would result in more learning. However, the definition of learning used in these studies was very narrow, and referred almost exclusively to the recall and retention of factual information.

One important early study was undertaken by A. W. VanderMeer in 1954. In this study comparable colour and black and white films were shown to different groups in order to test various hypotheses about the supposed advantage of colour. Colour, it was thought, might facilitate learning by providing additional information about the subject matter. Or, colour might facilitate learning by drawing attention to details which should be remembered. However, students viewing colour did not learn more than students viewing black and white. This was true even when the lesson was on snakes and colour could have been a useful cue. Black and white groups evidently found other characteristics of the snake equally effective in identifying the various species. However, VanderMeer found evidence that colour helps in remembering what is learned. Retested after six weeks, the colour groups had remembered more.

Another hypothesis was that colour would contribute to the enjoyment of a programme, and thus influence learning indirectly. But, although VanderMeer found that colour programmes were better liked than their black and white counterparts, the intrinsic appeal of the subject matter was much more important in facilitating learning than was the addition of colour.

Joseph Kanner and Alvin Rosenstein (1960) showed eleven different lessons to army trainees. Testing retention of the material, they again found no differences between colour and black and white, even for items in which colour was part of the material to be learned. Kanner and Rosenstein found that verbal labels were adequate substitutes for the colour visual cues.

Two similar studies are noteworthy because they used public school age children. May and Lumsdaine (1958), working with fifth and ninth grades, found no significant difference in either learning or interest after pupils were shown a colour or a black and white film on osmosis. Link (1961), using ninth grade students from Toronto, again found colour and black and white film equally effective.

Somewhat contradictory results have been found in studies undertaken in the area of advertising. Eric Schaps and Lester Guest (1968) compared responses to black and white and colour versions of four television commercials. Information in the commercials was classified as to whether it helped distinguish the product from others of the same type (relevant), or whether it did not aid in this distinction (irrelevant). Schaps and Guest felt that colour might facilitate the learning of irrelevant events, but have no effect on relevant events. However, they found that the colour groups recalled

more of both types of information. Furthermore, colour also enhanced learning regardless of whether the information was presented visually or auditorially. Retesting after a lapse of time, however, they found that colour groups had not remembered more than black and white groups.

This is one of the first times that the supposed effectiveness of colour received empirical support. Some earlier advertising studies had also demonstrated a learning advantage for colour, but they had suffered from serious design problems (Twyman, 1969).

Like Schaps and Guest, Katzman and Nyenhuis (1972) looked at the learning of different types of material. They defined one type of information as "central", content which relates to the basic theme or message being presented, and a second category as "peripheral", content which does not relate to the basic theme or message. They found that colour only increased the recall of peripheral material. However, since Katzman and Nyenhuis classify all details as peripheral, their peripheral category includes both Schaps and Guest's relevant and irrelevant categories, and the results of the two studies are in accord. Katzman and Nyenhuis found no advantage for colour in any of the other categories of information.

In the studies reviewed up to this point colour has merely been expected to increase the learning of factual material. These studies have not dealt with the possibility that the addition of colour changes the nature of a programme in some fundamental way. If colour is indeed a new medium, we need to look for evidence of its effectiveness with measures other than traditional tests of factual retention.

Few people would disagree that the experience of watching a colour programme is different from watching a programme in black and white. Yet, there is little systematic research to support this widespread

feeling. A number of studies, however, do give us a tantalizing glimpse into what these differences may be, and provide a point of departure for a more rigorous inquiry into the nature of any difference.

E. Dichter (reported in Twyman, 1969), in a study known as the "Psy-color-gy Study", exposed 150 women who had colour television in their own homes to alternating colour and black and white commercials. The women responded to the commercials on a number of scales. Relative to black and white, colour commercials were reported to "communicate faster", "be more real", "be more 3 dimensional", "be more unique", "be more adventuresome", "sophisticated and modern", "be more friendly and sociable", and to "clarify more and confuse less". Dichter summarized his findings by concluding that colour is a more emotionally involving medium.

T. Joseph Scanlon (1967), in a very interesting study, explored the same possibility. From a framework heavily influenced by McLuhanesque thinking, Scanlon's study tried to demonstrate that the addition of colour transforms television into a new and different medium. Scanlon had journalism students watch a news event either in colour or in black and white, and then write a description of what they saw. The written descriptions of those viewing in colour, Scanlon says, gave less emphasis to the spoken commentary which accompanied the news event and more emphasis to aspects of the event itself, conveying a sense of actually being present. He argues in favour of three hypotheses:

> "...that colour changes the emotional impact of television";
>
> "...that colour alters the importance of the spoken work";
>
> "...and that colour makes viewers more participants and less observers. In short that colour is a new language".
>
> (Scanlon, 1967, p. 230)

Recalling the study by Katzman and Nyenhuis (1972), it was found that posters and comic strips were rated as being more emotional and more interesting when viewed in colour than when viewed in black and white.

Advertising studies have also searched for attitude change resulting from the use of colour, and some have found that colour is more persuasive. But in these studies colour seems to act by increasing attentiveness rather than by changing the nature of the communication (Twyman, 1969).

THE PRESENT STUDY

On August 12, 1971, the Board of Education requested the Research Department to undertake a study of television utilization. The purpose of the study was to assess the effects of introducing large numbers of colour television receivers into the schools. Therefore, it seemed an opportune time to raise the question of the relative effectiveness of colour vs. black and white television, and to more systematically explore the possibility that the addition of colour changes the subjective viewing experience.

Previous studies had, it seemed to us, severe limitations. Those not finding a difference in response to the two media, tended to use didactic presentations and measure the recall of factual information. Studies finding a difference tended to use very brief materials designed to influence and persuade. Scanlon's study, which is the most suggestive of experiential difference, was very unsystematic and exploratory.

Our study used the familiar technique of choosing programmes and showing them to subjects in either colour or black and white. The subjects in this case were twelve grade seven classes from the experimental Toronto schools into which colour receivers had been introduced. Each class saw one programme, and then answered a series of questions about that programme.

The study was designed to measure both factual retention and subjective experience or feeling. To measure factual retention, we constructed ten item multiple choice tests on the content of the programmes. Several programmes did not lend themselves to this kind of testing and were not included in the analysis of factual retention.

To measure subjective experience, several instruments were developed, among them a modification of Osgood's Semantic Differential (1954).

The semantic differential measures three dimensions or aspects of connotative meaning. The first is the Evaluative dimension, which we used to assess the extent to which a programme is felt to be generally good or bad. Each student rated the programme he had seen on each of the following scales: pleasant-unpleasant, valuable-worthless, nice-awful, and good-bad. The average rating represented his overall evaluative feeling.

The second dimension is Activity, the extent to which a programme is seen as lively and energetic. The scales we used as representative of this dimension were: sharp-dull, fast-slow, active-inactive.

The final dimension is Potency, the power and effectiveness of a programme. The representative scales were: large-small, heavy-light, and strong-weak. Average ratings for each student were again found for both the Activity and the Potency scales.

The scales we used were somewhat different from Osgood's. Instead of a 7 point scale with only the 2 end points labelled, we used a 5 point scale in which every point was labelled. Pilot testing had shown this to be easier for the students to handle. Our format is illustrated by the following:

Very pleasant Pleasant Neutral Unpleasant Very unpleasant

Another evaluative measure, called the Liking Scale, was also developed. Each student indicated on a 4 point scale how much he liked the programme, how much he would like to see a similar programme, and the

extent to which he thought the programme should be shown to other students. His score on Liking, which should be similar to his score on the Evaluating dimension of the semantic differential, was the sum of these 3 scores. A copy of the questionnaire, showing all of these measures, appears in Appendix A.

It was felt that a more open-ended measure of experience was also needed. Thus, similar to Scanlon's approach, students were asked to:

> "Write a short paragraph about the programme you have just seen".

Students who asked what type of description they should provide, were told they could write on any aspect of the programme they wanted. Unlike Scanlon, however, we developed an objective coding scheme to summarize the paragraphs and represent the reactions of the students.

Each paragraph was read and coded on a 5 point scale which reflected the general tone of the paragraph as expressing either like or dislike for the programme. This is the third evaluative measure. Each statement in the paragraph was also coded in terms of content. The coding scheme was designed to assess whether or not colour is indeed a more emotionally involving medium than black and white. In accord with Scanlon's findings, we felt that if a student were more involved in a programme, more of his statements should relate to the general theme than to details. Thus, each statement was coded as having either Theme (T), or Part (P) reference.

Each statement was also assigned to one of the following categories:

> Personal reaction -
> expressions of liking, interest, or personal value.
>
> Attitude toward the content -
> expressions of attitude or opinion toward the subject matter of the programme: this is distinct from "personal reaction" which is an expression of attitude toward the programme itself.

Description -
descriptions of the programme content or an aspect of its production.

Inference -
statements about the meaning or intent of the programme which go beyond mere description of its content, must show evidence of reflective thinking.

Learning or no learning -
statements in which the student either said that he learned something or that he did not learn anything.

We felt that if colour is indeed more emotionally involving, there should be more statements of personal reaction and attitude, which express subjective reaction, and fewer of description, inference, and learning, which express cognitive or intellectual activities.

There are thus two codes for each statement, and 2 x 5 or 10 possible combinations of codes. Examples of each of the codes appear in Appendix B. We recorded only the first instance of a particular code combination. This was because statements were often repetitious and it was often difficult to tell when one statement of a type ended and a second of the same type began.

Since Scanlon reported that black and white viewers wrote longer descriptions, we counted the number of words in each paragraph.

In addition to emphasizing subjective measures, an important feature of this study was the use of a variety of programmes. There were four basic categories of programmes ranged on a continuum from those with predominantly audio content to those whose content was predominantly visual. The four categories also differed in their dramatic content. It was felt that colour might be important in programmes which allowed the student to identify with a story or experience. There were no programmes, however, which were solely dramatic. The programme categories are:

Category 1. Audio -- discussion programmes:

Category 2. Audio-Visual -- discussion or demonstration programmes involving visual props:

Category 3. Visual-audio -- dramatic presentation with commentary:

Category 4. Visual -- dramatic or artistic presentation with minimal commentary.

Three programmes which seemed suitable for seventh graders were chosen for each category from the videotape library of the Ontario Educational Communications Authority (OECA). Appendix C lists the programmes and gives a brief description of each. Each programme was shown to one class, half of the class viewing it in colour and the other half in black and white.

Classes were assigned to categories on the basis of standardized reading test scores so that there would be no differences in the achievement level of students in the various categories.

Classes were divided into colour and black and white groups alphabetically, and equalized for sex. Each sub-group viewed the programme at the same time in separate rooms. The classes were not told that we were interested in possible differences between colour and black and white. This was thought important in order to insure that students would respond only in terms of their immediate experience and not in terms of any intellectualized opinions they might have had about the two media.

Students were also asked about their ethnic and language background and about their prior experience with black and white and colour television both inside and outside of the classroom.

RESULTS

Ignoring the colour and black and white distinction, and looking first of all at students' feelings about particular programmes, it was found that the more visual programmes were more popular. The actual order of increasing popularity was Category 1, 2, then 4, and finally Category 3. This effect was consistent across all three evaluation measures. The reversal of the last two categories may reflect the vagueness of Category 4, the most visual category of all. With very little audio content, the focus of these programmes may have been just too diffuse.[1]

There was a similar difference between individual programmes and programme categories on the Potency dimension of the semantic differential. Programmes which were better liked were also seen as more potent.[2]

Looking at differences between colour and black and white, this study generally echoes the familiar finding of "no significant difference." There were no differences on Factual Retention, Evaluation, Liking, Feeling, Activity, or Potency.

There were no differences on these measures as a result of varying experience with colour. 31 per cent of the students said they had colour television in their homes. However they were no different in

---

1 Measures were analyzed using the analysis of variance for nested factors with unequal cell frequencies. This was a 2 x 4 x 3 design with two media, four programme categories, and three programmes per category, the latter constituting the nested factor.

2 Rank order correlation of .94 between average programme Potency and Evaluation scores.

their response to individual programmes or to the two media than were the 69 per cent who did not have colour television. Different exposure to colour television in school also made no difference. There was no effect for how much students liked school, nor for country of birth or language background.[3]

One background variable may have had a small effect. Students were asked how much they liked watching television in school. The overwhelming majority of students said that they either "liked it a little" or "liked it a lot". However the 22 per cent who were less favourable to school television reacted somewhat better to colour presentations. This showed up on the Potency and Liking scales, and on the Factual Retention measure. However the effects were scattered and inconsistent.

Some differences between colour and black and white did emerge from an analysis of the written paragraphs. It was discovered that fewer students viewing in colour made statements about the general theme of the programme than students viewing in black and white.[4] This was contrary to what had been expected. Colour, as presumably the more emotionally involving medium, was expected to generate more involvement in the total experience than was black and white. However, the reverse seems to be true.

---

3 Analysis of student background factors was done with t tests comparing colour and black and white presentations. The tests were run individually for each programme and background category.

4 Paragraph content was analyzed using tests of proportion to compare the number of colour and black and white viewers who made one or more statements of a particular type. For Theme, there was a statistically significant effect for Category 1 and overall. Overall, 94 per cent of the black and white viewers made Theme statements, while only 86 per cent of the colour viewers did so. In Category 1 the figures are 97 per cent and 85 per cent respectively.

It was also expected that more black and white viewers would make Part statements than would colour viewers. However the reverse was again found to be true, at least for audio-visual programmes (Category 2). There was no general difference on Part statements for all programmes taken together.

Scanlon had found that black and white viewers wrote more. This was not the case here. Differences in paragraph length were found, but they were not consistent. The findings are interesting because they relate to differences in the predominance of Theme and Part statements noted above.

It was found that students viewing the mime presentation of Jack and the Beanstalk in black and white wrote longer paragraphs than students viewing in colour.[5] Although more black and white viewers made almost each type of statement, the largest source of the difference in paragraph length is the number of viewers making Theme statements. 91 per cent of the black and white viewers made Theme statements, while only 42 per cent of the colour viewers did so. Looking at the paragraphs themselves, it appears that black and white viewers made more comments about mime as an art form. Colour viewers were more caught up in the story line: their paragraphs tended to be more narrative.

---

5 Analysis of paragraph length was carried out as described in footnote 1, page 11. Significant main effects were found for programme category and for individual programmes. A significant interaction was found between individual programmes and media. The major effects were localized by making individual comparisons between colour and black and white groups using the procedure for unequal cell frequencies described in Winer (1962, p. 244). For the mime programme black and white viewers averaged 73 words and colour viewers averaged 49 words.

With the batik programme (2c), on the other hand, colour viewers wrote more than black and white viewers.[6] Here the source of the difference is that many more colour than black and white viewers made Part statements (62 per cent vs. 21 per cent). A large difference was also found on Attitude statements (69 per cent vs. 29 per cent). But closer analysis shows that this is largely due to the number of viewers making Attitude-Part statements (50 per cent vs. 14 per cent), not Attitude-Theme statements (14 per cent vs. 21 per cent). In general, colour viewers were more impressed with the specific processes involved in batik, and had developed a greater appreciation for the particular designs that were used to illustrate the process.

There were no differences between the colour and black and white groups on any of the other statement categories. It had been expected that more students viewing in colour would make Personal Reaction or Attitude statements, while more students viewing in black and white would make Description, Inference, and Learning statements. But this did not occur.

It must be emphasized that finding a difference in paragraph content reflects what students felt was important about a programme and not what they remembered about it. Black and white viewers remembered as many story details, as evidenced by their performance on the Factual Retention test, as did colour viewers. However there were some differences in what impressed them about a programme, and this is what showed up in their paragraphs.

---

6 Colour viewers averaged 44 words and black and white viewers 29 words.

SUMMARY AND CONCLUSIONS

In general, our study finds little evidence that colour television is a different instructional medium from black and white, at least with reference to current instructional materials. Differences which do exist are very subtle, and suggest that colour may be a more involving medium, but only in a very particular and specific way. Students viewing in colour may be more involved in the actual visual experience; they do not seem to be more involved in the message that experience is intended to convey, nor in the feelings it can arouse. It can hardly be said therefore, that colour is a more emotionally involving medium, but merely that it is more visually involving. The colour viewer is more of a participant in the sense that he is caught up in the concrete events that occur, but he is less likely to react to those events as a totality.

It might be suggested that this is because colour decreases the importance of the spoken word. Scanlon has hypothesised that colour has such an effect. A theme is an abstraction and is often carried, or at least emphasized by the audio portion of a programme. This, however, cannot account for the total effect, since subjective responses (Personal Reaction, Attitude) and inferences (Inference) could also be categorised as Theme.

We also found no evidence that students who are accustomed to seeing colour television in their homes will react unfavourably to black and white television in school.

How then, do we account for the fact that some studies have found more widespread differences in favour of colour? If we look at these studies carefully, we will see that they include an important

visual component. Katzman and Nyenhuis asked subjects to judge posters. Schaps and Guest asked subjects to evaluate certain products, a task in which packaging may be an important element. Schwerin (in Twyman, 1969) found that colour was much more important in the advertising of food items than it was in non-food items.

Advertising materials are also short. Schaps and Guest's commercials were 30 seconds and 60 seconds long. Katz and Nyenhuis' posters and comic strips were exposed one by one. Colour may be more important when the viewing materials are not very complex. A telecast, especially a twenty minute one, has a great deal more material to engage the viewer.

The materials used in advertising studies are also characterised more by a propaganda than an educational intent. Advertising tries to capitalise on evoking feelings and associations which, although not directly relevant to the central message, are useful in molding attitudes toward the product.

As far as acceptance of the two media, we do not mean to imply that if given a choice students would not choose colour over black and white. But it does seem that if presented with a programme in black and white as a fait accompli, they will accept it equally well as one in colour. Colour may be enjoyed in its own right as a separate dimension, but it does not add to the enjoyment of other aspects of a programme, nor appreciably change responses to the programme itself.

In some of the other studies, subjects were exposed to both colour and black and white, Dichter's study and the study by Schaps and Guest, for example; this procedure may have elicited feelings about colour <u>per se</u>, rather than about colour programmes.

We must also remember that the students in our study were fairly experienced with colour. Their schools were participating in a special colour installation, and most children had viewed colour television during the school year. Colour-naive children may have been more impressed with colour presentations and responded to them in a different way.

In summary then, if the material to be taught involves visual experience or if involvement in a dramatic event is important, colour may be the better medium. But with other materials, there is little evidence that colour television is indeed a different medium from black and white or has any advantage, at least in the present educational setting. There may even be a disadvantage if reacting to the total message of a programme is important. Rather, colour is enjoyed much like the cherry on a sundae -- it's nice to have it there, but it doesn't do much to change the flavour of the ice-cream underneath.

REFERENCES

Kanner, J. H., & Rosenstein, A. Television in army training: Color vs. black and white. Audio-Visual Communication Review, 1960, 8, pp. 243-252.

Katzman, N., & Nyenhuis, J. Color vs. black and white -- Effects on learning, opinion and attention. Audio-Visual Communication Review, 1972, 20 (1), pp. 16-28.

Link, J. D. A comparison of the effects on learning of viewing film in colour on a screen and in black and white over closed circuit television. Ontario Journal of Educational Research, 1961, 3, pp. 111-115.

May, M. A., & Lumsdaine, A. A. Learning from films. New Haven: Yale University Press, 1958.

Scanlon, T. J. Color t.v.: New language? Journalism Quarterly, Summer, 1967, pp. 225-320.

Schaps, E., & Guest, L. Some pros & cons of color t.v. Journal of Advertising Research, 1968, 8 (2), pp. 28-33, 36-39.

Twyman, W. A. How effective is colour television advertising. London: The British Bureau of Television Advertising Ltd., 1969.

VanderMeer, A. W. Color vs. black & white in instructional films. Audio-Visual Communication Review, 1954, 2, pp. 121-134.

Winer, B. J. Statistical principles in experimental design. Toronto: McGraw Hill, 1962.

APPENDIX A

Questicnnaire

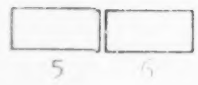
I.D. NUMBER [ ][ ][ ][ ]
1 2 3 4

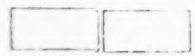
WRITE A SHORT PARAGRAPH ABOUT THE PROGRAM YOU HAVE JUST SEEN:

1 2 3 4

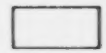
PLEASE CIRCLE THE WORD IN EACH LINE THAT YOU THINK BEST DESCRIBES: "THE PROGRAM YOU HAVE JUST SEEN"

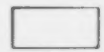
1.	VERY UNPLEASANT	UNPLEASANT	NEUTRAL	PLEASANT	VERY PLEASANT
2.	VERY SHARP	SHARP	NEUTRAL	DULL	VERY DULL
3.	VERY SMALL	SMALL	NEUTRAL	LARGE	VERY LARGE
4.	VERY VALUABLE	VALUABLE	NEUTRAL	WORTHLESS	VERY WORTHLESS
5.	VERY SLOW	SLOW	NEUTRAL	FAST	VERY FAST
6.	VERY GOOD	GOOD	NEUTRAL	BAD	VERY BAD
7.	VERY LIGHT	LIGHT	NEUTRAL	HEAVY	VERY HEAVY
8.	VERY AWFUL	AWFUL	NEUTRAL	NICE	VERY NICE
9.	VERY WEAK	WEAK	NEUTRAL	STRONG	VERY STRONG
10.	VERY ACTIVE	ACTIVE	NEUTRAL	INACTIVE	VERY INACTIVE

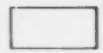




Did you like this program?	VERY MUCH ___	A LITTLE ___	NOT VERY MUCH ___	NOT AT ALL ___
Would you like to see another program like this one?	VERY MUCH ___	A LITTLE ___	NOT VERY MUCH ___	NOT AT ALL ___
Do you think this program should be shown to other students?	VERY MUCH ___	A LITTLE ___	NOT VERY MUCH ___	NOT AT ALL ___


11


12


13

(Example of the factual retention measure)

DUSTING OFF MYTHOLOGY -- WAR

1. War stories are never about:

   a. heroes
   b. traitors
   c. injury and death
   d. happiness for everyone

2. According to this program, we study war stories:

   a. to hear an exciting story
   b. to learn battle strategy
   c. to understand people better
   d. to learn what things a country should fight for

3. Before the gods took part, the Trojan war had been going on for:

   a. 120 years
   b. 25 years
   c. 9 years
   d. 1 year

4. Another title for this program might be:

   a. the Trojan war
   b. war stories throughout history
   c. the Greek gods
   d. war: what's it all about

5. The Greeks attacked Troy because:

   a. Paris had kidnapped Agamemnon's wife
   b. they wanted more territory
   c. the Trojans did not sacrifice to the gods
   d. the Trojans had attacked Greek cities

6. The giant horse found on the plains before Troy was:

   a. a gift from the Greeks
   b. a trick for getting Greek soldiers into the City of Troy
   c. a sign given by the gods of their approval of Trojan victory
   d. a trophy built by the Trojans

7. Who told the Trojans not to bring the wooden horse into the city:

   a. Achilles
   b. Helen
   c. Paris
   d. Leiacomb

8. The narrator feels that:

   a. war builds character
   b. people can learn to live in peace
   c. there will always be wars
   d. war is good for the economy

9. Both Achilles and Odysseus:

   a. tried to keep out of the army
   b. hid in the horse
   c. survived the war
   d. were in love with Helen

10. The program says that:

    a. people today are beginning to reject war
    b. there is no change in people's feelings about war
    c. people today have become more warlike
    d. nobody is really concerned about war today

11. This program says that myths:

    a. are based on things that really happened
    b. were used to cover up the real reasons for war
    c. are stories made up to teach us things
    d. all of the above

PLEASE CIRCLE:

A. Sex: 1. female 2. male

B. Were you born in Canada? 1. yes 2. no

If you were not born in Canada, how old were you when you arrived? ____

C. Was English your first language? 1. yes 2. no

D. What language is spoken most frequently in your home? _____

E. Do you have a black and white television in your home? 1. yes 2. no

F. Do you have a color television set in your home? 1. yes 2. no

G. How many hours a day do you watch television? _____

H. How often do you watch television in school? 1. more than once a week

2. once a week

3. a few times a month

4. once a month

5. never

16 [ ]

17 [ ]

18 19 [ ][ ]

20 [ ]

21 22 [ ][ ]

23 [ ]

24 [ ]

25 [ ]

[ ]

I. How often do you watch color television in school?

1. more than once a week
2. once a week
3. a few times a month
4. once a month
5. never

27

J. How much do you like watching television in school?

1. like it a lot
2. like it a little
3. have no opinion
4. dislike it a little
5. dislike it a lot

28

K. What do most of your teachers think about using television in school? _____

_____

29 30

L. How much do you like school?

1. like it a lot
2. like it a little
3. have no opinion
4. dislike it a little
5. dislike it a lot

31

APPENDIX B

Coding Scheme

PERSONAL REACTIONS TO THE PROGRAMME

Theme - "I like it a lot."
"It was a good program."
"Very interesting."

Part - "The island was very beautiful."
"It was interesting to see how the Trojan War started."

ATTITUDE TOWARD CONTENT

Theme - "I think it would be fun to live on (the island of) Brûc."
"I don't think war is a good thing".

Part - "I didn't like the way the Greeks tricked the Trojans."

DESCRIPTION OF THE PROGRAMME CONTENT OR AN ASPECT OF ITS PRODUCTION

Theme - "This was a program about war."
"The program was about a boy named Frané and the way he lived."

Part - "The war started when Paris kidnapped Helen."
"Frané and his mother had figs for dessert."

INFERENCE

Theme - "I think this program was to make people hate war."
"I think this program was made by a bunch of pacifists freaks who think the police are pigs."
"I think this program shows us that people in other lands have good lives too."

Part - "Frané should make good progress in his work."

LEARNING

Theme - "I learned a great deal from this program"
"The program about war was very informative."

Part - "I learned a great deal about Wasaga Beach."

NO LEARNING

Theme - "This program was of no value. It spoke of things I already knew."

APPENDIX C

Programme Guide to this Study

CATEGORY 1 - Audio

(a) Chalkdust: A gift for the teacher. Student discussion of teachers and teaching.
(b) People Worth Knowing: Gloria Swanson. An interview about natural foods.
(c) Black, White and Grey: Patriotism. Student discussion of nationalism and internationalism.

CATEGORY 2 - Audio-Visual

(a) Recreation: Where it's at. An illustrated lecture about recreational geography.
(b) Ripples: Out to the moon. Illustrated lecture on the Apollo moon shots including some dramatic material.
(c) Arts Now: Batik with Isalde Braederman Demonstration of the art of batiking.

CATEGORY 3 - Visual-Audio

(a) Dusting off Mythology: War -- What's it all About? Cartoon presentation of the horrors and senselessness of war, with particular emphasis on the Trojan War.
(b) Child life in other Lands: Story of Franê -- Yugoslavian boy. Dramatized presentation of life on a Yugoslav island with commentary by a young boy.
(c) Math Models: Geometric Shapes. Cartoon presentation of the properties and uses of various geometric shapes.

CATEGORY 4

(a) Science the Motivator: Life in the Classroom, Animals. Film of students studying animals naturalistically with commentary by the children.
(b) Let's Act it Out: Jack and the Beanstalk. Mime presentation of this fairy tale with some demonstration of mime techniques in general.
(c) Ontario Arts Scene: Dance. Presentation of several dance numbers and a short interview with the participants.